

## CLAIM OR CLAIMS

What I claim as my invention is:

1. A system and method of controlling the activities of a clinical laboratory in such a way that the results of quality control tests may be accepted as statistically valid, and not subject to bias.
2. The system and method according to Claim 1, wherein the functions of the system are performed by a computer program operating on a computer.
3. The system and method according to Claim 2, wherein the user can define the present operating parameters of the laboratory by entering data at the computer keyboard.
4. The system and method according to Claim 3, wherein the user can define the present operating parameters of the laboratory by selecting data from a previously filled database of typical parameter values.
5. The system and method according to Claim 4, wherein the location of control test samples within an analytical machine is specified randomly within the range of possible locations.
6. The system and method according to Claim 5, wherein the time at which control test samples are to be analyzed by the machine is specified randomly within the range of possible times.
7. The system and method according to Claim 6, wherein the test data resulting from the test or tests can be entered and recorded in a storage database.
8. The system and method according to Claim 7, wherein the test data resulting from the test or tests can be displayed graphically for user evaluation.
9. The system and method according to Claim 6, wherein the test data resulting from the test or tests and recorded in a storage database can be printed for user evaluation.
10. The system and method according to Claim 6, wherein the test data resulting from the test or tests are received directly from the analytical machine via a means of communication and recorded in a storage database.
11. The system and method according to Claim 6, wherein the parameters of the forthcoming tests are passed on to other laboratory information systems or machines via a means of communication and are recorded in a storage database.
12. The system and method according to Claim 6, wherein the repeat testing of patient samples is facilitated by the provision of a parameter entry screen appropriate to that task.